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STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



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IM-3

TO: All Interested Parties

FROM: Andrea R. Zajac, Chief, Storage Tank Unit

DATE: March 27, 2007

SUBJECT: Site Assessments for Underground Storage Tank (UST) Systems

A site assessment is required when a UST system or associated piping is removed, closed in place (when permitted), or undergoing a change-in-service. Samples should be taken by qualified personnel using generally accepted sampling procedures. For most owners and operators, an environmental consultant will be needed to perform this assessment. To locate a qualified person in your area, look in the Yellow Pages under Environmental and Ecological Services or Engineers: Environmental or Geotechnical.

Rule 55, Section 280.72, of the Michigan Underground Storage Tank Rules, 1999 AACRS et seq., R 29.2155 states that upon closure or change-in-service of a UST system, the owner shall perform a site assessment.

Closure or change-in-service of a **tank** shall comply with either of the following site assessment requirements:

1. If assessment samples are obtained by borings, two soil borings shall be taken as close as practical to the tank, but not more than five feet from the tank. One boring shall be taken at each end of the tank, but not more than two feet below the bottom of the tank and borings shall be taken at the bottom of each end of the tank.
2. If assessment samples are obtained upon the removal of a UST, samples shall be obtained in compliance with one of the following provisions (as applicable):
  - (i) One discrete sample shall be taken from the excavation floor underneath the fill pipe area for each tank removed and one discrete sample shall be taken from the excavation floor underneath the opposite end of the tank.
  - (ii) One water sample shall be taken if the entire floor of the excavation is covered with water or a one-for-one water-for-soil sample shall be taken if the excavation is partially covered with water.

Closure or change-in-service of **piping** shall comply with the following site assessment requirements (regardless of whether the tank portion of the system is closed):

A site assessment for piping shall be performed after emptying and purging the piping run or after the removal of piping. The site assessment shall consist of one discrete sample for every 30 feet of the underground piping run, starting at the dispenser location or the furthest point from the tank and moving towards the tank.

A piping assessment must be conducted whenever piping extends beyond the edge of the tank.

Samples shall be analyzed using the following testing methods:

An appropriate method listed in the United States Environmental Protection Agency standard entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846 document, Edition 3. The following are appropriate methods based on the listed analyte:

- Gasoline, JP4, and jet B shall be tested for benzene, toluene, ethylbenzene, and xylenes (BTEX). Methods include, but are not limited to: 8021B\* and 8260B\*.
- Diesel, fuel oil, kerosene, virgin motor oil, jet A, and JP5 shall be tested for polynuclear aromatic hydrocarbons (PNAs). Methods include, but are not limited to: 8310 and 8270C.
- Chlorinated solvents, ketones, ethers, mineral spirits, stoddard solvents, and naphthas may use Method 8260B.\* (Azeotropic distillation or closed-system vacuum distillation introduction may be necessary for certain compounds.)
- Petroleum oils (including new and used motor oils) shall use Method 8015 for Diesel Range Organics (DRO) or 8270C with an appropriate standard, or another appropriate method based on the analyte. If solvents comprise part of the waste oil, Method 8260B\* shall also be applied.

Other testing methods determined by the department to be equally effective in assessing the level of contamination. Proposals to use alternate method(s) shall be submitted to the Storage Tank Unit (STU), Storage Tank and Solid Waste Section, Waste and Hazardous Materials Division (WHMD) for approval *prior to use*.

\* Preservation in accordance with SW-846 Method 5035A shall be utilized for volatile soil samples in conformity with the WHMD Informational Memorandum No. 13.

NOTE: For regulated substances not listed above, please contact the STU, at 517-335-7211, for guidance in choosing the appropriate analytical methods.

Analytical results shall include the method used for the analysis and the chain of custody of the sample(s). If samples are required by the method to be stored at four degrees Celsius, the chain of custody shall indicate the temperature the samples were received by the laboratory or that they were received on ice.

**IF YOU FIND VISIBLE OR OLFACTORY EVIDENCE OF CONTAMINATION IN THE UST EXCAVATION OR ALONG PIPE RUNS, OR IF YOUR ANALYTICAL RESULTS SHOW CONTAMINATION, YOU MUST REPORT A CONFIRMED RELEASE TO THE WHMD BY TELEPHONE TO 517-335-7279, BY FACSIMILE TO 517-335-2245, OR BY E-MAIL TO [lucasj@michigan.gov](mailto:lucasj@michigan.gov) WITHIN 24 HOURS OF DISCOVERY OF THE CONTAMINATION.**

If you report a confirmed release, a site assessment is not required. The reporting requirements of Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, shall apply.

Positive indication from field monitoring equipment such as H-Nu meters, organic vapor analyzers, or combustible gas detectors constitutes a suspected release that shall require confirmation or cancellation within 14 days.

Visible evidence of contamination in the overburden soils should not be reported as a confirmed release. Only when visible evidence of contamination is encountered after the tank and overburden soils are removed should a confirmed release be reported. When contaminated overburden soils are removed, a hauling manifest shall be submitted with the "Underground Storage Tank System Site Assessment Report and Closure or Change-In-Service Registration Form, EQP 3881." **NOTE: Overburden soils removed shall not exceed ten (10) cubic yards per UST, or other quantity deemed appropriate by the WHMD.**

"Visible evidence" means presence of product sheen on water or stained soils.

"Olfactory evidence" means the smell of product odors in soils or water within the tank or pipe excavation.

If you have questions concerning this matter, please contact the STU, at 517-335-7211.